UNITED STATES PATENT AND TRADEMARK OFFICE

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10/733,264	12/12/2003	Hideo Hoshuyama	118019	8658

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/733,264	HOSHUYAMA, HIDEO
	Examiner	Art Unit
	TSUNG-YIN TSAI	2624

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) *8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAIL ACTION

Acknowledge of **Applicant response with no Amendment** received on 11/25/2008

and made of record.

Acknowledge of Extension of time filed on 11/25/2008.

Response to Arguments

Applicant's argument – Page 2-3, regarding claim 1, applicant argues where the

division of image data taught by the prior art, where the division of the image by Hirai

divides a focus object to be photograph as viewed through a camera, not image data to

be process or divided.

Examiner's response – Examiner would like to point out what is capture on the sensor

is image data as well and thus can be process on the sensor before storage to memory.

Examiner would like to point out page 3 paragraph 0044 discloses where the sensors 9

has a light receiving section, this is where the image data created on the sensor itself.

The image data on the sensor itself is further divided into section A0-5. Thus from this

point of view the image data is divided. Page 4 paragraphs 0057, further discloses how

the image data is process and then divided.

Examining the language of the claims again it seems there is a conflict what kind

of image data we are talking about. From the claim language it is unclear whether the

image data is recalled from storage or process on the sensor itself to be process.

Applicant's argument – Page 3, regarding claim 1, applicant argues where dividing of A0-5 corresponding to single color values and not plurality of pixels. Applicant pointed to paragraph 0044 of Hirai et al for such support.

Examiner's response – Paragraph 0044 of Hirai et al discloses sensor 9R, 9G, 9B and 9D, where these sensors are filters for red, green, blue and luminosity compensation. Examiner would like to point out where the filter still discloses plurality of pixel, but only in the ranges of only red, green and blue plurality of pixel. These sensors are than divided into the A0-5 plurality of small area and further process regarding the pixels properties.

Applicant is correct that there single color values, but is wrong regarding Hirai et al does not teach plurality of pixels. The filter that is discloses filter colors to one color but there is still plurality of the pixels of the particular color on the whole sensor. However, the claim language is regarding to plurality of pixels which is taught by the Hirai et al.

Applicant's argument – Page 3, applicant argues there is no mention of output values obtained by further dividing each of the areas.

Examiner's response – Hirai et al discloses in paragraph 0057 where data Bvad(i) which represents A/D converted output voltages (analog data) of the photometry areas Ai (i=0, 1, . . . , 5) shown in FIG. 4 of the photometry sensor 9D for normal light is obtained. Further, data Bvad.g(i), Bvad.b(i) and Bvad.r(i) which represent A/D converted values of the output voltages of the photometry areas Ai (i=0, 1, 2, . . . 5) of each of the

sensors 9G, 9B and 9R for color components are obtained. Then, the A/D converted

values Bvad(i) of the sensor 9D output are adjusted to brightness values Bvd(i) (S111).

The A/D converted values Bvad.g(i), Bvad.b(i) and Bvad.r(i) are also adjusted to the

brightness values Bvd.g(i), Bvd b(i) and Bvd.r(i), respectively (S112). It should be noted

that the A/D conversion at steps S111 and S112 are well-know A/D conversion

procedure, and the output voltage values (analog data) are converted into

corresponding digital data.

Thus mention of output values obtained by further dividing each of the areas are

discloses by Hirai et al.

Applicant's argument – Page 3-4 regarding dependent claims.

Examiner's response – Hirai et al teaches all the claims limitation, thus all the claims

are rejected still.

Claim Rejections – 35 USC 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1-2, 4, 6 and 7-9 are rejected under 35 U.S.C. 102(b) as being

unpatentable over Hirai et al (US 2001/0003557 A1).

Hirai et al disclose a image-processing device (title, abstract), also seen as a digital still camera (title, abstract, figure 1), carrying out the method (abstract, figures 7-16, 18-20 and 22) comprising:

(1) Regarding claims 1 and 6:

an image information generating part (page 1 paragraph 0005. The colorimetry system is seen as the information generating part) for dividing an image (figure 23, page 1 paragraph 0005) to be processed into a plurality of small areas (page 1 paragraph 0005 shows the colorimetry system divides the original image to sections), said small areas (figure 4B disclose the image that is taken, where small areas are mark from A0 to A5) each consisting of plurality of pixels (figure 4B disclose the image that is taken, where small areas are mark from A0 to A5 these small areas covers a region of the image data, and these regions are consist of plurality of pixel values, figure 6 discloses where the image is digitalize in order to be store in EEPROM and RAM memory, figure 17 discloses the RGB and CYM color values for the image), and for generating, for each of said small areas, image information indicating a characteristic of the image (page 1 paragraph 0005, page 2 paragraphs 0013-0015, page 8 claims 1-2. Varies type of characteristic of the image will be look at; the lighting exposure, measurement of the color red, green and blue.);

an evaluation value determining part (page 1 paragraphs 0007-0008. The compensation amount determining system is the system that will carry on the process like light meter measuring and exposure measuring) for determining an

evaluation value (figure 7, page 1 paragraph 0010, page 3 paragraphs 0044-

0045 and 0049. Luminosity values are compensated by filter and process from

analog value to digital values) **indicating luminosity** (page 1 paragraph 0005

discloses exposure amount, paragraph 0008 discloses light metering system.

Exposure amount and light metering system is seen as determining the

luminosity) **for each of the plurality of small area** (figure 4B disclose the image

that is taken, where small areas are mark from A0 to A5 these small areas

covers a region of the image data, and these regions are consist of plurality of

pixel values, figure 6 discloses where the image is digitalize in order to be store

in EEPROM and RAM memory, figure 17 discloses the RGB and CYM color

values for the image); and

an image-processing part (page 3 paragraph 0046, 0049-0050 and 0057.

There are various parts that take image data for output; LCD panel 21 and the

controller 20) for performing an image processing on each of the pixels (figure 6

and page 3 paragraph 0045 shows processing of the image processing. Page 3

paragraph 0050 show exposure value calculation procedure according to the

brightness value Bvd. Page 3 paragraph 0046 shows image processing as a

display of the LCD panel 24) of the image **data to be processed** according to

the evaluation value (figure 7, page 1 paragraph 0010, page 3 paragraphs 0044-

0045 and 0049. Luminosity values are compensated by filter and process from

analog value to digital values) determined by said evaluation value determining

part (page 1 paragraphs 0007-0008. The compensation amount determining

system is the system that will carry on the process like light meter measuring and

exposure measuring) **for a small area (**figure 4B disclose the image that is

taken, where small areas are mark from A0 to A5 these small areas covers a

region of the image data**) to which a pixel (**figure 4B disclose the image that is

taken, where small areas are mark from A0 to A5 these small areas covers a

region of the image data, and these regions are consist of plurality of pixel

values**) belongs and the evaluation value (**page 1 paragraph 0005-0010

discloses measuring meters, these values are seen as evaluation values that will

be use for exposure compensation amount**) determined for small area (**figure

4B discloses areas such as A0-5**) adjacent to the small area (**figure 4B

discloses areas such as A0-5, where the areas are next to each other**).**

(2) Regarding claim 2:

wherein said image-processing part (page 3 paragraph 0046, 0049-0050

and 0057. There are various parts that take image data for output; LCD panel 21

and the controller 20) includes the luminance level correcting part (page 1

paragraph 0007 show a compensation amount determining system that

processes exposure level on each divided area. Page 1 paragraph 0008 shows a

light measuring system that measures the incoming luminance level on incoming

data. Page 3 paragraph 0044 shows remaining sensor 9D that is provided with a

luminosity compensating figure the select the range of desire wavelength of

incoming light exposure. Page 3 paragraph 0050 shows at step S15 an

"exposure value calculation procedure" that is executed bas on the brightness

value Bvd) for correcting a luminance level of the image; and

said luminance level correcting part (page 1 paragraph 0007 show a

compensation amount determining system that processes exposure level on

each divided area. Page 1 paragraph 0008 shows a light measuring system that

measures the incoming luminance level on incoming data. Page 3 paragraph

0044 shows remaining sensor 9D that is provided with a luminosity

compensating figure the select the range of desire wavelength of incoming light

exposure. Page 3 paragraph 0050 shows at step S15 an "exposure value

calculation procedure" that is executed bas on the brightness value Bvd)

determines a luminance level correcting coefficient (page 3 paragraph 0049

shows a Bvd value, that is seen as the correcting coefficient, with will be use by

operation S20 executed by the controller 20, page 3 paragraph 0050 shows the

value Bvd, which is obtain for the "exposure value calculation procedure", page 4

paragraph 0057 shows that the value Bvd response to adjustment of the

brightness value) used for the luminance level correction according to the

evaluation value (figure 7, page 1 paragraph 0010, page 3 paragraphs 0044-

0045 and 0049. Luminosity values are compensated by filter and process from

analog value to digital values) for each of said pixels determined by said

evaluation value determining part (page 1 paragraphs 0007-0008. The

compensation amount determining system is the system that will carry on the

process like light meter measuring and exposure measuring) so as to perform a

luminance level correction (page 1 paragraph 0007 show a compensation

amount determining system that processes exposure level on each divided area.

Page 1 paragraph 0008 shows a light measuring system that measures the

incoming luminance level on incoming data. Page 3 paragraph 0044 shows

remaining sensor 9D that is provided with a luminosity compensating figure the

select the range of desire wavelength of incoming light exposure. Page 3

paragraph 0050 shows at step S15 an "exposure value calculation procedure"

that is executed bas on the brightness value Bvd) processing on each of said

pixels by using the coefficient (page 3 paragraph 0049 shows a Bvd value, that is

seen as the correcting coefficient, with will be use by operation S20 executed by

the controller 20. Page 3 paragraph 0050 shows the value Bvd, which is obtain

for the "exposure value calculation procedure". Page 4 paragraph 0057 shows

that the value Bvd response to adjustment of the brightness value).

(3) Regarding claim 4:

wherein said evaluation value determining part (page 1 paragraphs 0007-

0008. The compensation amount determining system is the system that will carry

on the process like light meter measuring and exposure measuring) performs a

pre-correction processing (page 1 paragraph 0008 shows a light metering system

which is seen as a pre-correcting processing system before the image is taken.

Page 3 paragraph 0044 shows a luminosity compensating filter, which only let in

certain wavelength rage as well as the normal light detecting sensor is also seen

as a pre-correcting processing system) on the image information (page 1

paragraph 0005, page 2 paragraphs 0013-0015, page 8 claims 1-2. Varies type

of characteristic of the image will be look at; the lighting exposure, measurement

of the color red, green and blue) for each of said small areas ((page 1 paragraph

0005. The colorimetry system divides the original image to sections) generated

by said image information generating part (page 1 paragraph 0005. The

colorimetry system is seen as the information generating part) in accordance with

a characteristic of a photo-taking lens (page 3 paragraph 0044 show filter lens

letting in selected wavelengths) used for generating the image, and then

determines the evaluation value (figure 7, page 1 paragraph 0010, page 3

paragraphs 0044-0045 and 0049. Luminosity values are compensated by filter

and process from analog value to digital values) according to the pre-corrected

image information (page 1 paragraph 0008 shows a light metering system which

is seen as a pre-correcting processing system before the image is taken. Page 3

paragraph 0044 shows a luminosity compensating filter, which only let in certain

wavelength rage as well as the normal light detecting sensor is also seen as a

pre-correcting processing system) for each of said small areas (page 1

paragraph 0005 shows colorimetry system divides the original image to

sections).

(4) Regarding claim 7:

further comprising a divisional photometry part (figure 1, figure 23, page 1

paragraph 0005 show a photometry area into a plurality of area, page 1

paragraph 0007) for dividing a subject field into a plurality of photometry areas

(page 1 paragraph 0005 shows the colorimetry system divides the original image

to sections) and performing photometry for each of the photometry areas (page 1

paragraph 0005 show that photometry area in plurality of areas and colorimetry is

performed on these areas, page 1 paragraph 0010 shows that exposure

compensation amount is perform on the plurality of photometry areas), wherein

said image information generating part (page 1 paragraph 0005. The colorimetry

system is seen as the information generating part) generates the image

information (page 1 paragraph 0005, page 2 paragraphs 0013-0015 and page 8

claims 1-2. Varies type of characteristic of the image will be look at; the lighting

exposure, measurement of the color red, green and blue) based on information

obtained from said divisional photometry part (figure 1, figure 23, page 1

paragraph 0005 show a photometry area into a plurality of area, page 1

paragraph 0007).

    (5) Regarding claim 9:

    dividing an image to be processed into a plurality of small areas (figure 23,

page 1 paragraph 0005), said small areas (figure 4B disclose the image that is

taken, where small areas are mark from A0 to A5) each consisting of plurality of

pixels (figure 4B disclose the image that is taken, where small areas are mark

from A0 to A5 these small areas covers a region of the image data, and these

regions are consist of plurality of pixel values, figure 6 discloses where the image

is digitalize in order to be store in EEPROM and RAM memory, figure 17

discloses the RGB and CYM color values for the image), and for generating, for

each of said small areas, image information indicating a characteristic of the

image (page 1 paragraph 0005, page 2 paragraphs 0013-0015, page 8 claims 1-

2. Varies type of characteristic of the image will be look at; the lighting exposure,

measurement of the color red, green and blue);

determining an evaluation value (figure 7, page 1 paragraph 0010, page 3

paragraphs 0044-0045 and 0049. Luminosity values are compensated by filter

and process from analog value to digital values) according to the image

information generated (page 3 paragraph 0046, 0049-0050 and 0057. There are

various parts that take image data for output; LCD panel 21 and the controller 20)

for each of said small areas and the image information generated for each of

small areas (figure 6 and page 3 paragraph 0045 shows processing of the image

processing. Page 3 paragraph 0050 show exposure value calculation procedure

according to the brightness value Bvd. Page 3 paragraph 0046 shows image

processing as a display of the LCD panel 24) adjacent to the each of said small

areas, the evaluation value (figure 7, page 1 paragraph 0010, page 3 paragraphs

0044-0045 and 0049. Luminosity values are compensated by filter and process

from analog value to digital values) indicating luminosity (page 3 paragraph

0044-0045, 0049. Brightness value, Bvd, is measure and calculated) of each of

pixels constituting the image; and

performing an image processing (figure 6 and page 3 paragraph 0045

shows processing of the image processing. Page 3 paragraph 0050 show

exposure value calculation procedure according to the brightness value Bvd.

Page 3 paragraph 0046 shows image processing as a display of the LCD panel

24) on each of the pixels of the image according to the evaluation value (figure 7,

page 1 paragraph 0010, page 3 paragraphs 0044-0045 and 0049. Luminosity

values are compensated by filter and process from analog value to digital values)

determined in the evaluation-value determining step (page 1 paragraphs 0007-

0008. The compensation amount determining system is the system that will carry

on the process like light meter measuring and exposure measuring).

Claim Rejections – 35 USC 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al

(US 2001/0003557 A1) in view of Kita (US 2002/0051569 A1).

(1) Regarding claim 3:

Hirai et al teaches all of the subject matter as describe in claim 1 above.

Hirai et al does not teach regarding smoothing processing of the image.

However, Kite teaches regarding the smoothing processing of the image

(page 3 paragraph 0038-0049).

It would have been obvious to one skill in the art at the time of the

invention to employ Katie teaching to Hirai et al regarding smoothing processing

of the image, such it would effectively reduce the coarse look of the image

without blurring (page 3 paragraph 0045), and greatly enhance with better

contrast, less of the coarse, and retain the sharpness of the image (page 3

paragraph 0048).

10.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al

(US 2001/0003557 A1) in view of Kimura (US Patent Number 6,333,792 B1).

(1) Regarding claim 5:

Hirai et al teaches all of the subject matter as describe in claim 1 above.

Hirai et al does not teach regarding a ratio of distance from a pixel and a

predetermine point.

However, Kimura teaches ratio of distance from a pixel (page 1 lines 55-

65) and a predetermine point (page 1 lines 55-65 show that there is a original

pixel without the enlargement factor).

It would have been obvious to one skill in the art at the time of the

invention to employ Kimura teachings to Hirai et al regarding ratio of distance

from a pixel and a predetermine point, such that when enlargement operation is

requested it will attain optimal enlargement by switching various interpolation

schemes depending on the layout sate of the surrounding pixels (page 1 lines

60-65).

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Kobayashi et al (US Patent Number 6,388,709 B1) disclose image sensing

apparatus with optical modulation elements having transmission characteristics

controllable by pixel.

Kawakami et al (US Patent Number 6,005,984) disclose process and apparatus

for extracting and recognizing figure elements using division into receptive fields, polar

transformation, application of one-dimensional filter, and correlation between plurality of

images.

Kawakami et al (US Patent Number 5,901,252) disclose Process and apparatus

for extracting and recognizing figure elements using division into receptive fields, polar

transformation, application of one-dimensional filter, and correlation between plurality of

images.

Berlin, Jr et al (US Patent Number 4,677,576) disclose non-edge computer

image generation system.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to TSUNG-YIN TSAI whose telephone number is

(571)270-1671. The examiner can normally be reached on Monday - Friday 8 am - 5

pm ESP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jingge Wu can be reached on (571)272-7429. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/
Supervisory Patent Examiner, Art Unit 2624

/Tsung-Yin Tsai/

Examiner, Art Unit 2624

January 5, 2009